U.S. PATENT DOCUMENTS

2005/0100930 A1 5/2005 Wang et al. 2006/0020371 A1 1/2006 Ham et al.

OTHER PUBLICATIONS

Choi et al., "Development and characterization of a generic microfluidic subsystem toward portable biochemical detection", Micro Total Analysis Systems, 2000, pp. 327-330.*

Choi et al., "An integrated microfluidic biochemical detection system with magnetic bead-based sampling and analysis capabilities", Micro Electro Mechanical Systems, The 14th IEEE International Conference, Jan. 2001, pp. 447-450.*

Graham et al., "Single magnetic microsphere placement and detection on-chip using current line designs with integrated spin valve sensors: Biotechnological applications", Journal of Applied Physics, May 15, 2002, vol. 91, pp. 7786-7788.*

Ferreira et al., "Biodetection Using Magnetically Labeled Biomolecules and Arrays of Spin Valve Sensors," J. of Appl. Physica, May 15, 2003, vol. 93, pp. 7281-7286.

Freitas et al., "Magnetoresistive Biochips," Euorphysics News, 2003, vol. 34, No. 6, pp. 1-8.

Gao et al., "A Study of Magnetic Interactions of Ni80Fe20 Arrays Using Ultrasensitive Microcantilever Torque Magnetometry," J of Appl. Physice, Jun. 1, 2004, vol. 95, pp. 7010-7012.

Graham et al., "Magnetroresistive-Based Biosensors and Biochips," Trends in Biotechnology, Sep. 2004, vol. 22, pp. 455-462.

Grutter et al., "Batch Fabricated Sensors for Magnetic Force Microscopy," Appl. Physics Letters, Oct. 22, 1990, vol. 57, pp. 1820-1822. Joshi et al., "Biochemical Stability of Components for Use in a DNA Detection System," IEEE Transactions on Magnets, Jul. 4, 2004, vol. 40, pp. 3012-3014.

Li et al., "Detection of a Singel Micro-Sized Magnetic Bead and Magnetic Nanoparticle Using Spin Valve Sensors for Biological Applications," J of Appl Physice, May 15, 2003, vol. 93, pp. 7557-7559.

Li et al., "Spin Valve Sensors for Ultrasensitive Detection of Superparamagnetic Nanoparticles for Biological Applications," Sensors and Actuators A, 2006, vol. 126, pp. 98-106.

Mirowski et al., "Lateral manipulation of Magnetic Particles in a Microfluidic Platform of Arrayed Magnetic Elements: the Road to High Throughput Sorting and Probing of Biological Molecules," Annual APS March Meeting 2004, Mar. 22-26, 2004 Montreal, Quebec, Canada.

Mirowski et al., "Integrated Microfluidic Isolation Platform for Magnetic Particle Manipulation in Biological Systems," App. Physics Letters, Mar. 8, 2004, vol. 84, pp. 1786-1788.

Mirowski et al., "Manipulation and Sorting of Magnetic Particles by a Magnetic Force Microscope on a Microfluidic Magnetic Trap Platform," Appl. Physics Letters, 2005, vol. 86, pp. 243901-1-243901-3. Moreland, "Nanoprobe Imaging," Electronics and Electrical Engineering Laboratory, Magnetic Technology Divisoin Programs, Activities, and Accomplishments, Jan. 2003, pp. 14-20.

Moreland, "Micromechanical Instruments for Ferromagnetic Measurements," J of Phys D: Applied Physics, 2003, vol. 36, pp. R39-R51.

Ramachadran et al., "Direct and Controlled Manipulation of Nanometer-Sized Particles Using Non-Contact Atomic Force Microscopy," Nanotechnology 1998, vol. 9, pp. 237-245.

* cited by examiner